

## **TAG: Learning Set 1.4**

**Read**

Name \_\_\_\_\_

Hour \_\_\_\_\_ Date \_\_\_\_\_

### **What is Keeping Your Coaster Car From Going Straight & Far?**

**Conference:** Read pg. 35 . Examine your car with your group & answer the following questions.



What could be causing your car to change direction?

What could be causing your car to slow down?



**Communicate:** Share your ideas with the class.

What parts of the coaster car do your classmates think are affecting the car's motion?

What do you think those parts are doing to cause the coaster car to turn or slow down?

Read "**Forces Change Motion**" on pg. 36.

What changes the motion of an object?

When an object *accelerates*, it can experience a change in...

What is the difference between *positive* and *negative acceleration*?

Give 2 examples of acceleration and tell whether it is positive or negative acceleration.

1.

2.

**The Force of Friction:** Read pg. 37

What is friction?

How is it produced?

How does friction affect moving objects?

Stationary object?

### **Stop and Think**

1. What forces do you think is making your coaster car move?

2. What force is making your coaster car slow down? Where is the force coming from?

3. What forces are making your coaster car turn off to the side? Where are these forces coming from?

**The Amount of Friction:** Read pg. 38-39.

The amount of friction is affected by what 2 things? Give an example for each one.

1.

example:

2.

example:

What else affects the amount of friction?

What is the difference between *sliding* and *rolling friction*? Give an example of each.

### **Stop and Think**

1. Describe two situations from your everyday life that involve friction. How could you increase or decrease the amount of friction in each of these situations?

2. Imagine sliding a heavy crate across a carpeted floor. What could you do to reduce the amount of friction and slide the crate more easily?

3. How do you think friction affects the performance of your coaster car?

4. How would you describe the type of surfaces involved in the motion of your car?

**What's the Point?** Read pg. 40. Write 2 important facts about friction.

1.

2.